

**WHAT IS CLAIMED IS:**

- 1           1.     A fiber optic receiver, comprising:  
2           a substrate;  
3           a receiver optical sub-assembly (ROSA) mounted on the substrate and  
4           comprising a fiber optic connector for coupling to a mating connector of a fiber optic  
5           cable;  
6           an opto-electronic transducer incorporated within the ROSA and configured to  
7           generate an electrical data signal in response to a received optical data signal;  
8           a preamplifier circuit incorporated within the ROSA, coupled to the opto-  
9           electronic transducer, and operable to linearly amplify an electrical data signal  
10          generated by the opto-electronic transducer; and  
11          an adjustable bandwidth post-amplifier circuit mounted on the substrate and  
12          coupled to an output of the preamplifier circuit.
- 1           2.     The fiber optic receiver of claim 1, wherein the post-amplifier circuit  
2           comprises a switch for setting a bandwidth response of the post-amplifier circuit in  
3           response to a received data rate control signal.
- 1           3.     The fiber optic receiver from claim 2, wherein the post-amplifier circuit  
2           further comprises a low-pass filter coupled to the switch.
- 1           4.     The fiber optic receiver of claim 3, wherein the low-pass filter comprises  
2           a capacitor.
- 1           5.     The fiber optic receiver of claim 1, wherein the post-amplifier circuit  
2           comprises a voltage-variable capacitor.
- 1           6.     The fiber optic receiver of claim 1, wherein the post-amplifier circuit  
2           comprises a wide bandwidth signal path and a narrow bandwidth signal path.
- 1           7.     The fiber optic receiver of claim 6, wherein the post-amplifier circuit  
2           further comprises a multiplexer configured to selectively present for output electrical  
3           data signals transmitted over one of the wide bandwidth signal path and the narrow  
4           bandwidth signal path in response to a received data rate control signal.

1           8.     The fiber optic receiver of claim 6, wherein the wide bandwidth signal  
2 path comprises an amplifier with a relatively wide bandwidth response and the narrow  
3 bandwidth signal path comprises an amplifier with a relatively narrow bandwidth  
4 response.

1           9.     The fiber optic receiver of claim 1, wherein the post-amplifier comprises  
2 an input gain buffer coupled to the output of the preamplifier circuit.

1           10.    The fiber optic receiver of claim 1, wherein the pre-amplifier circuit is  
2 configured to linearly amplify an electrical data signal generated by the opto-electronic  
3 transducer over a specified range of optical data signal power.

1           11.    The fiber optic receiver of claim 1, wherein the ROSA comprises a  
2 header module mounted on the substrate and configured to house the opto-electronic  
3 transducer and the preamplifier.

1           12.    The fiber optic receiver of claim 1, wherein the opto-electronic  
2 transducer comprises a photodiode.